



## City of Seattle Seattle Planning Commission

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October 7, 2003

Ross Macfarlane, Director  
Legal & Environmental Affairs  
Seattle Monorail Project (SMP)  
1904 Third Avenue, Suite 105  
Seattle, WA 98101

Dear Mr. Macfarlane:

The Seattle Planning Commission appreciates the opportunity to comment on the Seattle Monorail Project Draft Environmental Impact Statement (DEIS). We also appreciate that SMP scheduled a 45 day review period, beyond the required 30 day period, to ensure that citizens/volunteer groups have more time to thoroughly review the lengthy document and appendices.

The Planning Commission recognizes the important role the EIS process plays: describing in detail the preferred and alternative options, identifying all potential impacts; identifying the best possible ways to mitigate these impacts; and giving the public the opportunity to weigh in on the document. The Final EIS becomes the blueprint for SMP, the City, and the community as the project moves into design and implementation. It is particularly important in identifying who is responsible for mitigating impacts, particularly those that go beyond the physical structure of the monorail.

Twelve Commissioners have participated in reviewing specific sections of the DEIS; three additional MRP and Design Commission members also participated in the review. Commissioners come from a broad spectrum of professional disciplines and represent most geographic areas of the community. They have reviewed the DEIS from those perspectives and, importantly, from their role as a primary steward of the City's Comprehensive Plan and of its neighborhood plans. The full Planning Commission has reviewed and approved this final letter's comments and recommendations.

The Planning Commission is also submitting a letter to the City of Seattle, identifying key issues that the City will need to consider in its decisions, including impacts that are related to station area planning, and impacts that appear to require negotiation between the City and SMP to determine appropriate responsibility.

For the most part the needed information is in the DEIS but the analysis is not. There are many gaps in the analysis of impacts and identification of mitigation measures throughout the document. It is critical that the FEIS seriously address these concerns for it to perform its intended function of guiding the City, the SMP and the community in ensuring that this project has the least adverse impacts on the community as possible.

We are happy to meet with SMP staff to answer any questions you have or to discuss our comments further.

## OVERALL COMMENTS

### Project Description

Overall the description of the proposed Monorail project is adequate and in many sections the information is very thorough and detailed. The use of a consistent format which organized information by segment was helpful to navigate through the information within each topic. However, it was difficult to see the overall system effects of various types of impacts.

The document's organization (by segment) made it difficult to ascertain how the various topical sections relate to one another and whether, taken as a whole, they provide a complete picture of the projects, its impacts and reasonable mitigation strategies. The appendices are helpful, but some of this information should be in the body of the main DEIS and Executive Summary so that it is not necessary to refer to the appendix for visual images, pertinent technical analysis, etc.

A critical missing element in the DEIS is a specific section on City Plans and Policies, including reference to neighborhood plans. This is typically a required element of an EIS, providing a baseline for analyzing impacts to those policies and plans. **The Planning Commission recommends inclusion of City Plans and Policies element to the EIS.**

Another omission in the DEIS is consideration of an alternative with fewer stations. While it is clear that the SMP is highly motivated to build all nineteen stations, cost constraints may require that they delay or eliminate some stations, the impacts of which should be identified and addressed in the FEIS. **The FEIS should address the possibility of fewer stations and any new station locations (e.g. Broad Street), identifying impacts to that location, impacts on other nearby potential stations and on overall ridership estimates.**

### Impacts and Mitigation

Overall the Planning Commission is disappointed and dissatisfied with the level of analysis of impacts and mitigation strategies. While the DEIS provides a lot of information, it lacks a thorough inventory and analysis of adverse impacts and appropriate mitigation strategies and measures. These will be required for decision making by both the SMP and the City of Seattle. We appreciate that the DEIS attempts to accommodate the two technologies in the alternatives, but believe more analysis is needed of their specific impacts.

It is incumbent on the SMP to identify potential mitigation measures in the EIS. This will most certainly help the agency keep on its schedule by fully informing the City and community and providing a clear framework for addressing impacts. This document should also identify to the extent possible the costs of potential mitigation measures, critical to the overall decision making process regarding alignment and station location.

The Planning Commission questions how Resolution 30486\* is being interpreted regarding the SMP's versus the City's responsibilities for mitigation. This Council Resolution sets forth a policy statement regarding the scope of the SMP's responsibility for impacts and identifies the FEIS as the framework for impact mitigation. **We agree with the Mayor's September 16, 2003 letter\*\* to SMP clarifying the policy intent and would add our voice to the call for broader analysis of impacts and mitigation measures in the FEIS.**

In particular, the DEIS lacks a summary by segment of impacts and potential mitigation measures. This would be helpful in assessing the overall effect of the Monorail on each segment and in determining the most effective package of mitigation measures. **We highly recommend that the FEIS contain such a summary that contains information of impacts by category and potential mitigation measures**

The DEIS lacks detailed engineering analysis that is essential in certain cases to identify impacts and determine how to mitigate them. The Planning Commission recognizes that the timing of the project and the DBOM process will result in more of the engineering work to be done after the FEIS. **We strongly recommend that the SMP consider preparation of a Supplemental EIS after the DBOM contract is selected and preliminary engineering studies/analyses are completed. This will ensure a systematic and thorough approach to addressing impacts that can be identified only at that point in the development process.**

**The FEIS should provide a more complete and in-depth analysis of potential impacts and mitigation measures. In addition, the Planning Commission recommends that two sections be added to the FEIS: areas of controversy and areas yet to be resolved.** This will provide a clear place to address a number of issues that are not yet resolved and require more attention in the design phase.

It is often the case that predictions of environmental impacts are simply inaccurate, in spite of everyone's good intentions in the estimation process. Simply stating anticipated impacts and mitigation that addresses the impacts, as stated, often has proven insufficient. The development of measurable impact thresholds and a set of mitigation measures with triggers would go a long way toward safeguarding social and environmental assets, and would permit environmental auditing. The Monorail DEIS has not, but should establish thresholds of impacts that trigger mitigation, especially during construction.

**The FEIS needs to articulate a clear threshold or standard for defining impacts that require some type of mitigation that the community, the City and SMP can all use to monitor the project as it moves forward. The FEIS also needs to articulate the SMP's commitment to a process by which the community, the City and other stakeholders can get information and petition for mitigation of impacts that meet an established threshold.**

**The Planning Commission recognizes that not all mitigation can be fully developed at this time. However, SMP should make every attempt to identify those areas where mitigation is necessary and how it will be addressed in the future such as a defined process, agreement with partnering agencies, or memorandum of agreement/understanding.**

#### **Overall Recommendations for Additions to the FEIS:**

- **Include City Plans and Policies element to the EIS.**
- **Expand the FEIS to include a broader analysis of impacts and mitigation measure.**
- **Include a summary of impacts by topical area, and segment, including potential mitigation measures.**
- **Address the possibility of fewer stations and any new station locations (e.g. Broad Street), identifying impacts to that location and impacts on other nearby stations.**
- **Include a commitment to preparation of a Supplemental EIS after the DBOM contract is selected and preliminary engineering studies/analyses are completed. This will ensure that all impacts are addressed, including those that can be identified only at that later point in the development process.**

- **Identify a clear threshold or standard for determining when impacts require some type of mitigation – a tool that the community, the City and SMP can all use to monitor the project as it moves forward.**
- **Articulate the SMP's commitment to a process by which the community, the City and other stakeholders can get information and petition for mitigation of impacts that meet an established threshold in the FEIS.**

*\* (City Council Resolution 30486 calls for limiting project requirements to those elements that are necessary for safe and effective operation of the monorail, and necessary to directly mitigate any significant adverse impacts that may be caused by the monorail project as identified in the final, project-level EIS)*

*\*\* Mayor Nickels Letter clarifies policy intent to include broader definition of areas of impact for which the SMP would be responsible.*

## SPECIFIC COMMENTS

### Transportation

This is a critical section in the EIS since this project's intent is to add significantly to the city's overall transit capacity, to increase mobility and to help reduce auto use. Overall the Commission is concerned by gaps in both the identification and analysis of impacts and the identification of mitigation measures. These are discussed below along with recommendations for addressing these issues in the FEIS.

#### ➤ Ridership

In the Ridership section, Year 2020 Ridership Forecasts (p. 4-29), more clarity is needed on what percentage of the ridership are those transferring from transit to monorail, and what percentage boarding the monorail are those transferring from an SOV to the monorail. In addition, it needs to be made clear where "new" ridership comes from, particularly where it is people changing their travel mode from SOV to monorail.

As a footnote to most peak hour operations tables (e.g. Table 4.1.22), a note states, "all results are shown with the highest ridership alternative". This suggests that at the vicinity of a station, more activity would be captured given the highest ridership estimate was being used. However, if a vehicle screenline approach is used along the study area, this may suggest optimistic traffic volumes. If this is indeed the case, **the Commission suggests that a sensitivity analysis be conducted where more conservative ridership values are used.**

**The FEIS should provide a more thorough analysis of ridership, including clear information regarding the sources of ridership and use of a methodology that includes more conservative estimates. The FEIS should also include an assessment of mitigating measures that reflect more conservative ridership outcomes.**

#### ➤ Transit

The Monorail project has estimated ridership based on a set of assumptions that include the reprogramming of local transit service within the immediate service area of the new monorail line. Since monorail service replaces existing bus service along the entire corridor, the current bus service can be reprogrammed for other uses. The project demand assumptions rely upon a specific reprogramming of bus service that will support the monorail project through feeder type service to monorail stations. This support bus service influences overall demand, the modal characteristics of accessing station areas, the total travel time savings realized by the project, design requirements for stations themselves, and, in general, nearly all aspects of project performance. This is not guaranteed and according to Metro's comments on the programmatic EIS is unlikely. If it doesn't occur this will significantly decrease projected ridership, and will lessen benefits to residents and the community. **The Planning Commission finds that the assumption of bus service reprogramming is an area of policy risk that has not been adequately addressed in project documentation, and specifically by the DEIS.**

The consequences of failing to enact these bus service changes are enormous, and would result in significantly different project characteristics than those represented in the DEIS. For example, with poor bus access to stations, the station areas could experience significantly higher amounts of vehicular traffic and demands on parking, thus requiring additional project mitigation. **At a minimum, the FEIS needs to acknowledge the risk and possibility of less than desired/needed transit service and connections. In**

**the FEIS explicit treatment of the consequences from this area of risk should be estimated and analyzed in detail. Impacts arising from lower than anticipated reallocation of transit service should be addressed, including identifying mitigation measures. The Planning Commission recommends that the FEIS include a thorough analysis of this risk, including potential mitigating strategies.**

➤ **Pedestrians and Bicycles**

The monorail project will add pedestrians to the street at all stations, while widening some streets and adjusting signalization to optimize flow of traffic. This presents a dilemma since it is not possible to optimize traffic movement and at the same time extend signal times allowing pedestrians to cross wider streets safely. **The FEIS needs to address this dilemma, articulating the impact on pedestrians and how such impacts could be mitigated.**

The DEIS notes that columns located within the sidewalk space are assumed to be 3' away from existing curbs. Many sidewalks are only 6' wide; therefore less than 3' clear width would exist in some column locations. **The FEIS should explain the specific impacts of the columns on sidewalk width and its impact on pedestrian movement, and identify mitigation measures (such as widening the sidewalk). The FEIS should also address ADA concerns at these (and other) locations.**

➤ **Traffic Circulation**

In general the DEIS lacks a thorough analysis of traffic circulation, particularly showing traffic in both directions and cumulative effects through a corridor. For example, in the analysis of traffic operations, using the Synchro traffic operations software analyzes each intersection as isolated and precludes the ability to look at the cumulative effects along a street corridor. The traffic analysis also identifies intersection congestion only in one direction. This is a particular problem along corridors such as 15th NW, 2nd Avenue and California Ave SW/Fauntleroy SW where congestion may occur in both directions and where limited movements at a series of intersections may have cumulative impacts that need to be mitigated.

For arterials that will be losing a lane of capacity for Monorail Right of Way, such as major arterial corridors of 15th and 2nd Avenue; utilizing the SimTraffic software (part of the Trafficware software package that includes Synchro) would provide a better idea of the true operational impacts on vehicles caused by losing an arterial lane. SimTraffic takes into account cumulative operational impacts occurring upstream and downstream of the intersection therefore capturing vehicle queuing and spillback to a greater degree than Synchro. **It is recommended that the SimTraffic software be utilized for the two primary corridors that could be losing one lane of capacity and that the results of this analysis are provided in the FEIS.**

In Table 4.1-57 footnote (a) states "For the mitigation alternative, signal timing splits were optimized to provide more green time for the southbound through movement. This would improve the overall intersection average delay in some locations to conditions better than No-Action and Alternative 4.3" The Commission is concerned that Alt 4.3 (3 GP lanes) is not optimized as Alt 4.3 Mitigation (2 general purpose lanes). It seems that in order to do a fair comparison between the 3 vs. 2 lanes, both should be optimized.

➤ **Parking**

Overall this section does not do a thorough job of identifying parking impacts or of describing appropriate mitigating measures. The parking section should articulate at the outset what is included in parking counts and assumptions. While the loss of on-street parking is identified, the DEIS is not clear in stating

this as an adverse impact. Rather it seems to assume that the impacts are generally mitigated by the presence of parking on adjacent streets or parking lots. This further assumes that filling up adjacent residential streets with “park and hide” vehicles is not an impact that needs to be mitigated.

**The FEIS should reexamine parking impacts and identify tools for mitigating impacts that can be used where the City and the community seek to limit such additional parking and its impact on residential and small business uses. This analysis should include impacts associated with the loss of parking due to new or relocated bus stops/zones located at monorail stations.**

➤ **Impacts and Mitigation**

As noted above, the DEIS does not acknowledge the risk associated with changing transit service to meet the needs of the monorail. **The FEIS must include a risk analysis of transit reallocation and address the possibility of reduced transit service than what is desired.**

Overall the visual images provided in the transportation section do not show the impacts – these should be replaced in the FEIS with images that clearly show impacts to sidewalks, traffic circulation and parking. For example, where a traffic lane will be removed, the visual images and modeling should simulate the traffic impacts. The visual images created to depict the monorail and its physical impact to the streetscape were primarily facing north or south on 2nd Avenue. The Commission questions why there were no visual images created looking west from 3rd or 2nd Avenue. The inhibited view of Puget Sound or many of the office plaza parks would be impacted significantly and the visual images do not provide convey those impacts.

As noted above, there are traffic impacts associated with hide and ride on adjacent streets – increased traffic at certain hours of the street being the most obvious one. The availability of on street parking in adjacent areas is not a mitigation measure. **A full range of tools to address parking impacts should be identified in the FEIS.**

There is no discussion of bike and pedestrian impacts, yet these are integral parts of the transportation network. Particularly since the monorail serves both pedestrians and bicyclists, it would seem important to mitigate negative impacts caused by the Monorail to make it safe and easy for these users to access the system. **Bicycle and pedestrian impacts and should be carefully described and analyzed in the FEIS.**

There is no mention of impact mitigation for freight mobility. Limiting left hand turn lanes, eliminating lanes and placement of columns all have potential impacts on freight mobility. **Impacts on freight mobility should be addressed in the FEIS, including identification of mitigation measures.**

The DEIS fails to identify and assess cumulative transportation impacts along the corridors. **This should be included in the FEIS, particularly along the corridors mentioned above.**

Overall the Traffic Safety Section is sparse and does not address adequately basic traffic safety issues. Not only should pedestrian and bicyclist safety be addressed near stations, but additional analysis should be conducted on the sight-distance impacts to vehicles with columns being placed approximately 150 feet down a corridor. Significant safety issues could develop given the limited sight distance for drivers as they proceed with turning movements (side streets, businesses, residential units) and yielding to pedestrians, particularly where U-turns are permitted or likely to occur. Both of these affect the ability of drivers to see pedestrians and other vehicles and add more vehicle movements at intersections. **The FEIS**

**should provide a more detailed analysis of traffic safety issues for all segments, including the issues identified above.**

The “Planned Transportation Improvements” section(p 4-32) does not include the Alaskan Way Viaduct project or the Sound Transit tunnel construction as part of the transportation network improvements. These projects could have significant impacts to the transportation system not only in downtown Seattle, but Ballard and West Seattle as well. **The FEIS should include the Alaskan Way Viaduct and the Sound Transit projects in the assessment of “Planned Transportation Improvements”.**

In general it is not clear where the SMP plans to take responsibility for mitigating transportation impacts – ranging from the impact of reducing traffic flow, to parking, pedestrian, and bicycle and traffic safety, to impacts on transit operations (e.g. relocating bus stops, bus connections, and service changes). **The FEIS should include a clear statement regarding transportation impacts for which the SMP will be responsible.**

### **Summary of Recommendations for the FEIS**

- **Provide a more thorough analysis of ridership, including clear information regarding the sources of ridership and use of a methodology that includes more conservative estimates. The FEIS should also include an assessment of mitigating measures should reflect more conservative ridership outcomes.**
- **Acknowledge the risk and possibility of less than desired/needed transit service and connections, then analyze and estimate the consequences from this area of risk in detail. Address impacts arising from lower than anticipated reallocation of transit service, including identifying mitigation measures.**
- **Address the challenge of optimizing traffic movements while extending signal time for pedestrians to cross the street.**
- **Address ADA concerns at stations; explain the specific impacts of the columns on sidewalk width and its impact on pedestrian movement, and identify mitigation measures.**
- **Consider using more sensitive traffic circulation software (e.g. SimTraffic ) for the two primary corridors that could be losing one lane of capacity; provide results of this analysis in the FEIS.**
- **More thoroughly examine parking impacts including park and hide impacts, loss of parking due to new or relocated bus stops/zones at stations, and loss of revenues from metered parking displaced by columns or bus zones. Identify mitigation tools to use where the City and the community seek to limit such parking impacts on residential and small business uses.**
- **Replace images used in the DEIS to clearly show impacts to sidewalks, traffic circulation and parking.**
- **Bike and pedestrian impacts, integral parts of the transportation network should be carefully described and analyzed in the FEIS.**
- **Address impacts on freight mobility, including identification of mitigation measures.**
- **Identify and assess cumulative transportation impacts along the key corridors, including mitigation measures.**
- **The “Traffic Safety” analysis for all segments should be studied further and should identify and address site distance and U-turns impacts along the corridor and at stations.**
- **Add visual images that show transportation impacts of various alignment alternatives.**
- **Add the Alaskan Way Viaduct and Sound Transit tunnel projects in the assessment of “planned Transportation Improvements” and address any potential impacts.**



## Displacements and Relocation

### ➤ Overall/Description

The DEIS does a thorough job of inventorying the possible displacement and relocation impacts created by the alignment and station options. However, the description of the substations and their potential impacts is lacking (i.e. proximity to the stations and guideway – whether they are likely to be in commercial areas or residential areas). These are not insignificant structures (1000 – 1200 square feet) and therefore should be described in clear terms regarding their footprint, needed buffers and proximity to other elements of the system. This section also does not provide specific information on the size and potential location of temporary taking of property needed for construction staging. **The Final EIS needs to address these issues, providing as definitive information as possible regarding these elements of displacement and relocation.**

### ➤ Impacts

Because of the uncertainty of specific alignment, station and design alternatives to be selected, the discussion of impacts from displacement and replacement is not very detailed. In particular system design features will have an effect on the amount of land needed for columns, stations and substations. There will also be impacts from temporary takes for construction staging. The Planning Commission recognizes staging area sizes and locations will be subject to the DBOM contract but are necessary to construction of the project and should be mentioned in this section. Even at this point it should be possible to estimate the requirements of these construction staging site including how close they need to be to the construction site and generally how large they need to be. **The FEIS should include an estimate of construction staging requirements and their impacts regarding displacement/relocation of businesses or residences and property acquisitions.**

Displacements and Relocation is a sensitive subject and SMP should strive to provide as much certainty as possible for property and business owners and residents through the EIS and development process. While it is not possible to give certainty at this point regarding which properties and businesses will be affected, the SMP should establish clear procedures for how they will make decisions and what mitigation will be provided for full or partial acquisitions and temporary easements. The decision as to whether a property is subject to a full acquisition, a partial acquisition or a temporary easement should be binding at some point in the process. It is critical to provide as much lead time and certainty to both property owners and business operators as possible. **The Commission recommends that the FEIS include a commitment to specific amounts of lead time to property owners and businesses, allowing them sufficient time to plan for appropriate relocation.** This would provide a measure of predictability that would make it easier for property owners and businesses to have time and assistance in ensuring their continued viability.

It is important to value and support the diversity of the areas along the route, recognizing that each neighborhood, business, and property has its own context. A solution that works for one may not work as well for another. Some neighborhoods are economically stable and can absorb a certain amount of dislocation and disruption. Others may never recover or will take much more time and effort to come back. Some businesses “stand alone” and can be moved without losing their market. Others may need to be in a cluster of complementary establishments to survive. While historic preservation is addressed in the sections on design and environmental impacts, it is another part of the context that is not addressed in the displacement or economic impact sections. Finally, there are cultural fabric issues in certain areas that go beyond individual businesses or properties. **The FEIS should include information and assessment of these different impacts in both the Displacement and Economic sections.**

➤ **Mitigation**

The most critical aspects of any mitigation strategy is to provide predictability to affected parties and to understand that a "one size fits all" approach does not work. The focus of dealing with businesses that will be displaced should assess needs of the specific type of business and their locational needs and tailor the mitigation measures to meet those needs. The FEIS should include an assessment as to whether there is needed zoning/locational capacity for different types of businesses that will be located, particularly if they need to be located near other businesses or to stay close to their current location.

**SMP should include as part of its mitigation the development of a handbook on Displacement and Relocation that provides all property owners and businesses with information about the nature and scale of possible displacement and that establishes predictability in the notification and assistance process.** The City Council will also need adequate information on displacement to factor in their decision on the alignment/station locations, thus it must be provided in the FEIS.

**Recommendations for the FEIS**

- **Identify and address impacts from the power substations, providing as definitive information as possible regarding displacement and replacement.**
- **Identify and address impacts from temporary property takes for construction.**
- **Include an estimate of construction staging requirements and their impacts regarding displacement/replacement of property and businesses or residences.**
- **Include a commitment to specific amounts of lead time to property owners and businesses, allowing them sufficient time to plan for appropriate relocation.**
- **Include information and analysis that acknowledge and address the characteristics of businesses that affect their being displaced and relocated. This assessment should be included the Displacement /Relocation and the Economic sections.**
- **Make a commitment and provide an outline in the FEIS of a handbook on Displacement and Relocation to provide a clear process and timeline for dealing with displacement and relocation.**

## **Land Use and Neighborhoods**

➤ **Overall/Description**

The Planning Commission appreciates the thorough inventory and description of the segments and land uses along the proposed alternative alignments provided in this section. The figures are easy to understand and it is helpful to have them organized by segment. That said, it is difficult to get a sense of the overall system in terms of land uses and impacts in the DEIS.

➤ **Impacts**

While land uses are described, the DEIS doesn't adequately describe impacts. Indeed the document infers that there are few if any land use impacts but contains no analysis to support this conclusion. Likewise there is little or no attention given to secondary land use impacts particularly around stations. For example, the DEIS provides little analysis about the specific impact of the juxtaposition of guideways and stations directly adjacent to land uses immediately beyond the street. In particular, the DEIS lacks analysis of the impact of station location on the surrounding properties where it will abut single family or low density residential parcels (across an alley/next street).

An example of a land use and neighborhood impact is the possible displacement of the Interbay QFC supermarket or reduced parking. This could have significant ramifications to the community and to

health of the business area, and could affect the viability of other adjacent land uses. The FEIS must identify this potential impact and identify mitigation that could be implemented to address this impact as well as other similar impacts in other station areas.

The DEIS also does not contain sufficient information and no analysis of neighborhood plans. This document should describe specifically the project's consistency with each neighborhood plan along the route, with particular attention to goals and recommendations regarding the future of the each area's commercial core and regarding transportation within and to that core area. This analysis should address the potential demand for increased density and development which has both negative and positive impacts.

While a ¼ mile radius is used for assessing potential impacts, the DEIS does not explain the rationale for this area of analysis. In fact, some areas may demand a larger radius depending on the patterns of development and circulation.

While most of the attention is on stations, the FEIS should include a more detailed analysis of the impact of the guideway where it is passing by buildings. In some areas this could result in an impact on the current land use as well as on the value of property and the quality of life for those living or operating businesses in those buildings.

➤ **Mitigation**

Having concluded there are no land use impacts, the DEIS does not address mitigation measures. In addition to adding mitigation to the impacts discussed above, the FEIS should address impacts the project will have on future development of the area and suggest mitigation measures to impacts that would be inconsistent with the neighborhood plans.

**Recommendations for the FEIS**

- **Identify potential land use impacts (e.g. Interbay QFC Displacement) and identify mitigation that could be implemented to address this impact as well as other similar impacts in other station areas.**
- **Include a more detailed analysis of the impact of the guideway where it is passing by buildings.**
- **Include a more detailed description and analysis of neighborhood plans, including the consistency of the Monorail project with goals and recommendations and impacts that the project may have in implementing those goals and recommendations.**
- **Determine station areas where more than ¼ mile radius is merited for analysis of potential impacts; carry out additional analysis as needed.**
- **Include analysis of the impact of the monorail guideway on adjacent buildings – on both residential and commercial uses.**

**Economics**

➤ **Overall/Description**

Overall the Planning Commission is concerned that the Economic Section does not address actual economic impacts of the monorail. The DEIS makes two main points relating to economic effects of the project. The first relates to construction benefits, and the second relates to property value gains near transit stations. Neither of these claims can legitimately be considered as economic benefits of a transportation project, but rather should be identified as economic transfers.

➤ **Impacts and Mitigation**

The DEIS states the following: “The project is anticipated to cost over \$1 billion in construction and related funding over the next five years and to increase demand for construction-related goods and services. As this money is introduced into the local economy, much of it will continue to circulate and create job opportunities as workers spend money on goods and services and recipients again spend money on other goods and services.”

Project construction expenditures are not legitimate project economic benefits; rather these costs are transfers from taxpayers to the construction sector. Especially where a new local tax is being enacted, tax revenues represent resources that would already be circulating within the local economy, are drawn out of general circulation (representing an economic loss), and then reintroduced into the economy as project expenditures.

As it relates to property values, the DEIS states: “A review of the literature regarding the effect of transit systems, including the existing Seattle Center Monorail and transit systems in other cities, finds that after construction is complete, the economic impact of transit, as reflected by property values, is generally favorable, although other local market factors continue to be the major driver for property values and economic utility.”

This, once again, is more of an economic transfer rather than a net economic benefit. Property values near transit facilities may increase relative to other parts of an urban environment, but it is generally accepted that they only do so at the expense of property values somewhere else within the regional economic geography. This is, once again, an economic transfer, not a net benefit; though a portion of the benefit of increased property tax revenues in these locations will accrue to the City of Seattle while the loss may be experienced outside of the city.

This section does not identify or analyze potential adverse economic impacts resulting from the Monorail Project. These include the economic impact on businesses that are required to relocate or are affected during construction. Nor does it address potential adverse impacts on rental/lease rates and occupancy in buildings directly adjacent to the guideway. It also does not address the potential adverse impact if property values rise in the vicinity of stations. While this benefits some people, it will have an adverse impact on the ability of people with limited incomes and are transit dependent to live close to the monorail line and stations. This increases barriers to use of the monorail by those who may need it most. The Final EIS must contain a complete description and analysis of these impacts as well as potential mitigating measures

**Summary of Recommendations for the FEIS**

- **The Final EIS must include a significantly expanded Economics section that identifies all potential adverse economic impacts, analyze the nature and scope of impact, including actual cost estimates. It should also identify potential mitigation strategies.**

## Visual Quality and Aesthetic Resources

### ➤ Overall/Description

The Planning Commission appreciates the attention devoted to the Visual Quality and Aesthetic Resources in the DEIS and appendices. The inventory of all of the areas possibly affected in terms of visual impacts and aesthetic resources is quite large, with a fairly involved methodology.

While the DEIS acknowledges that there are overall adverse impacts to visual quality, there is no link between the analysis and conclusions. The methodology of this section is fundamentally flawed for the work does not reference or state City policy or design guidelines related to view corridor, urban design, streetscape or other aesthetic or pedestrian quality objectives. At the very minimum, these should be used as one measure for determining the level and significance impacts and as a threshold for determining appropriate mitigation.

The DEIS identifies the view of riders as a benefit. While this may be true, the job of the DEIS is to identify and address adverse impacts to people, property and uses and to identify ways to mitigate those impacts. The views experienced by riders while on the system cannot be viewed as compensation or mitigation of the other view loss implications, but seems to be considered as a mitigation strategy. Such a consideration is ill-founded.

### ➤ Impacts

The Planning Commission does not find a logical link between the section's analysis of impacts and its conclusions. After all of the documentation and listing of impacts, the conclusions try to predict whether viewers would think that the new line would be consistent with the local character of development.

**Section 4.5.4 does not clearly define what the "significant unavoidable adverse impacts" are – this should be added in the FEIS in order to give decisionmakers a clear definition to aid in determining at what level impacts must be mitigated.**

The Executive Summary Environmental Impacts text (page 18) is extremely general and inconclusive; it should be revised to be clearer and consistent with the findings in the EIS. For example, Tables 1-3 through 1-9 in the DEIS actually rate the visual impacts "low" to "high". Many people will only read the text of the summary. **More substantive information should be included in that section and interested parties should not have to dig for information.**

The monorail would not leave a single unobstructed view corridor in the downtown area. Several of the simulations looking toward Elliott Bay are shown at a distance (See M-76 & 77). The impacts would be far greater as the viewer approaches the monorail; for example on Third Avenue (See M-73). The guideway will also obstruct views of building features (terra cotta detail) in many older buildings. The DEIS also does not mention the impacts to people living or working in buildings near the line. In some cases the guideway would be located within about 8 feet from a building window. This would constitute a significant adverse impact to the individual, and collectively, those impacts would be significant to the city as a whole and the quality of nearby development.

The DEIS is inadequate in its treatment of open space impacts, particularly along 2<sup>nd</sup> Avenue in downtown. The 2<sup>nd</sup> Avenue Urban Design Plan, reconfirmed in the Downtown Plan views 2<sup>nd</sup> Avenue as a pedestrian street with more trees, buildings are set back to provide usable open space (in contrast to 3<sup>rd</sup> which was seen as the transit street). The DEIS does not address the impact of the Monorail on the

intended function of this street. **The FEIS should include a detailed description and analysis of impacts regarding the intended function of this street and identify mitigation measures.**

The discussion in Segment-Specific Impacts regarding the impacts of station and/or guideway shadows is helpful, though the assessment appears overly optimistic regarding impacts than may be the case in reality. The FEIS should reexamine this section and make any needed revisions to ensure that the assessment is realistic.

The DEIS claims that the monorail structure/facility has little impact downtown because of its urban scale. The Planning Commission disagrees with this characterization and notes that much of 2<sup>nd</sup> Avenue in downtown has buildings at a finer grain and scale, so it is not valid to make a general statement that it fits into the downtown urban scale of development with no impacts. **The massing, bulk and scale of columns through lower scale parts of downtown and through the smaller scale neighborhoods along the line will definitely have negative visual impacts that need to be addressed in the FEIS.**

The Executive summary states the construction of the Green Line would be “consistent with Downtown urban development”. This is misleading since very little downtown development occurs in the public right of way – over public streets and public sidewalks. The Convention Center expansion and pedestrian walkways at Bon-Macy’s and Nordstrom’s are the few exceptions.

There are several key views that are not shown where the impacts are particularly sensitive; Federal Building Plaza; Benaroya Hall Remembrance Plaza; Alaska & California in West Seattle (Alaska Junction). There are also significant views from historic (and other) buildings and landmarks. Some of these locations are listed in the Draft EIS but there is no visual simulation for analysis. **All of these should be included in the FEIS with an analysis of the nature of impacts to them.**

**The Commission also recommends that the final EIS include discussion of additional aesthetic elements that will impact the street-level experience of pedestrians and riders alike. These include a) street lighting and lighting around stations at night; b) accurate assessment of shading at the street level by the guideway, columns and stations; c) trash associated with monorail stations; d) trees and other vegetation; e) “noise cowling” and what that looks like; and f) the visual impact of advertising on the trains and at stations.**

**Finally, the Planning Commission reminds SMP that in the work of the Planning and Design Commissions last year with the ETC, there was agreement that the structure should be a significant piece of civic architecture. This language needs to be incorporated into the FEIS to ensure that it is not downgraded in the final design.**

#### ➤ **Mitigation**

The Planning Commission is disappointed with the lack of clarity in the DEIS regarding where and what are the unavoidable adverse impacts. The DEIS does not articulate any mitigation plan for loss of views and adverse impacts to aesthetic quality of the monorail. This needs considerable work for the FEIS.

#### **Summary of Recommendations for FEIS**

- **Reference or state City policy or design guidelines related to view corridor, urban design, streetscape or other aesthetic or pedestrian quality objectives. At the very minimum, these should be used as one measure for determining the level and significance impacts and as a threshold for determining appropriate mitigation.**

- **Add a clear definition of “significant unavoidable adverse impacts” as it applies to visual quality and views.**
- **Provide a much more thorough analysis of adverse impacts on views and aesthetics as noted above (e.g. impacts on 2<sup>nd</sup> avenue streetscape, on views of historic buildings, along designated view corridors)**
- **Include a detailed description and analysis of impacts regarding the intended function of Second Avenue and identify mitigation measures.**
- **Add to the inventory and analysis views of key buildings and spaces along 2<sup>nd</sup> Avenue, and Alaska and California Junction.**
- **Address adverse impacts that the massing, bulk and scale of columns will have through lower scale parts of downtown and through the smaller scale neighborhoods along the line.**
- **Include discussion of additional aesthetic elements that will impact the street-level experience of pedestrians and riders alike. These include a) street lighting and lighting around stations at night; b) accurate assessment of shading at the street level by the guideway, columns and stations; c) trash associated with monorail stations; d) trees and other vegetation; e) “noise cowling” and what that looks like; and f) the visual impact of advertising on the trains and at stations.**
- **Add reference and confirm earlier commitment to making the monorail structure a significant piece of civic architecture.**

## **Air Quality**

### **➤ Overall/Description**

The DEIS includes results of air quality monitoring for those intersections along the route determined to be the worst performing intersections. The analysis does not include, however, information evaluating potential air quality due to activity at stations. In particular analysis of air quality effects associated with vehicles serving stations, including buses and other vehicles, requires DEIS analysis and evaluation.

### **➤ Impacts**

Intersections with high traffic volumes and congested levels of service are included in the air quality analysis followed by a statement that since these worst projected operating conditions are not expected to exceed air quality requirements, none of the Green Line alternative would exceed air quality levels. (Page 4-224) Additional information describing air quality conditions at stations is required to support this statement.

## **Summary of Recommendations For FEIS**

- **Provide more detailed information and rationale for conclusions regarding the lack of air quality impacts from the monorail and related traffic activities.**

## **Noise and Vibration**

### **➤ Overall/Description**

The Commission finds the noise and vibration section has a number of gaps. The first concerns methodology. Noise analysis is based on measured performance of similar equipment in Florida, but the comparability of conditions is not made clear. For example, it is not clear if the evaluation presented included noise produced by equipment operating through curves, during braking and accelerating for

curves and stations, and operating in elevated sections adjacent to structures as would be the case in Seattle. It is noted that potentially significant noise effects are anticipated for approximately 700 residences. This statement requires further evaluation in relation to operating conditions for a route with numerous curves, changes in elevation, and adjacent structures and topography.

➤ **Impacts**

The DEIS states that Green Line trains braking and accelerating to enter and leave stations will not produce excess noise (Page 4-245). Specific analysis and evaluation should be presented to support this determination in the FEIS.

Noise evaluations should apply to bus layover locations. Noise conditions due to vehicles serving station locations, as well as layover area, is needed. Please note that evaluation of noise conditions for such related service should be complemented by air quality analyses (Page 4-246).

Analysis of interior/exterior noise and vibration at performance halls along the SMP route is important. Additional information defining the methods used to generate noise for the purpose of these tests is needed in order to judge the adequacy of the test results (Page 4-258).

The DEIS does not address impacts on commercial buildings that have opening windows and would be affected (like residential structures) by noise of operation and possible disruption to the working environment. There is also no mention of horn sounding. The existing Monorail horn is quite loud and if the new monorail has a similar horn that sounds when trains enter and leave stations (every two minutes or so), this would be a significant impact that requires analysis and consideration of mitigation measures. **This additional analysis should be included in the FEIS.**

Several other noise sources that are missing or lacking in sufficient detail include the potential for noise generated at traction power stations and the potential for vibration affecting historic structures (particularly original glass in exterior windows). **These should be addressed in more depth in the FEIS.**

➤ **Mitigation**

It is noted that noise level reductions of 3 to 14 dBA would be necessary to avoid potentially significant noise effects to residential areas along the SMP route (Page 4-275). It is not clear what methods used in the noise level model computations allowed for operations in curves, changes in grade, and breaking/acceleration at station areas. **This requires clarification in the FEIS.**

Potential noise reduction/mitigation measures are presented in Table 4.7-1. (Page 4-276) It is not clear from the table and related evaluations, how effective these measures would be individually or in combination to reduce cumulative operational noise levels. In addition, it is essential that an evaluation of potential mitigation actions include commitments to levels of performance for the life of the project. Mitigation measures must also apply to construction activities. **The FEIS must provide a more thorough analysis addressing the estimated effectiveness of specific noise mitigation measures.**

## **Summary of Recommendations for the FEIS**

- **Provide an analysis of noise impacts on the working environment in buildings adjacent to the monorail guideway, including the impact of horn sounding. Identify appropriate mitigation measures.**



- **Include an analysis of noise generated at traction power stations, of noise vibrations and their impact on adjacent historic buildings, performance halls such as Benaroya Hall, from bus layover stations.**
- **Clarify methodology used to compute noise levels, including consideration of operations in curves, changes in grade, etc.**
- **Provide more detailed assessment of the effectiveness of mitigation measures, applied both individually and cumulatively.**

## Energy

### ➤ Overall/Description

Overall, this section is very general and fails to provide sufficient detailed analysis in many respects. Of potentially critical significance is the potential impacts on the city's electric power system which is not addressed in this section.

### ➤ Impacts

The DEIS concludes (Section 4.8.2.1) that the Green Line would not cause adverse impacts to the local power supply. However, there is only cursory discussion of the impact on **peak power usage** when demand on the grid is highest, particularly in cold, wet weather. This is important because the potential for energy shortages naturally is at its highest during peak periods of demand and the monorail's peak periods of usage coincide with electric energy peak usage. The DEIS dismisses its impacts on the energy system as minimal because it would "consume less than one seventh of the energy used by Nucor Steel." Steel mills, however, are extremely heavy users of energy; and the "shape" of their energy use, and typically the construction of their pricing contracts, does not overly stress the system during peak periods. Moreover, the claim of minimal impact appears to be somewhat in conflict with Section 4.9.2.2, where it states "longer-term operational impacts could include the potential for additional power to serve the Green Line system and potential conflicts with existing utility maintenance and replacement operations."

There should be a much more detailed analysis of the monorail's impact on the city's electric power system, especially during peak periods of usage and in adverse weather. Also, the impacts of building 10 to 20 power substations should be more fully analyzed, as should the impacts of building a dual feeder system.

### ➤ Mitigation

Having concluded that the monorail system will not have impacts on the energy supply system, the DEIS does not address mitigation measures. This is a serious omission that must be corrected in the FEIS. **The FEIS should include a detailed analysis of impacts resulting from peak use of energy and the possible longer term need for additional power to serve the Green Line system. An analysis of impacts on City Light rates should be included in this section as well as the identification of potential mitigation measures and their estimated cost and effectiveness.**

## Summary of Recommendations for the FEIS

- **Provide a detailed analysis of impacts resulting from peak use of energy and the possible longer term need for additional power to serve the Green Line system.**
- **Analyze the impact on City Light rates and identify/assess potential mitigation measures including estimated cost and effectiveness.**
- **Provide a detailed analysis of the impacts of monorail power substations.**

## Public Services and Utilities

### ➤ Overall/Description

The information provided on public services and utilities appears to be sufficiently comprehensive, identifying all public facilities, services and utilities in the vicinity of the monorail alignment. The analysis references contacts with public service providers, but is quite general. This section also lacks any discussion of public safety.

### ➤ Impacts and Mitigation

The DEIS identifies in quite a bit of detail the transportation impacts from placement of the guideway and more general analysis of impacts on public utilities. There is little detailed analysis of impacts on fire/life safety to buildings adjacent to the guideway, or on mitigation measures. Likewise the focus on public safety centers on stations, but has little to say about public safety along the route between stations. **More detailed analysis and description of mitigation measure should be included in the FEIS.**

## Summary of Recommendations for FEIS

- **Provide more detailed description and analysis of impacts of the guideway on fire safety for buildings adjacent to the guideway.**
- **Provide more detailed description and analysis of public safety impacts along the guideway, particularly between stations. Mitigation measures should be identified, including coordination with Seattle Police Department (SPD) for monitoring the areas, lighting, design features and connections with adjacent uses.**

## Parks and Recreation

### ➤ Overall/Description

The DEIS does a good job of inventorying the parks and recreational spaces that may be impacted by the monorail project. As noted below, some areas lack adequate description and analysis of impacts associated with the monorail project.

### ➤ Impacts

The most significant impacts to park areas will be at Longfellow Creek. Restoration of the creek and developing a park were major parts of the Delridge Neighborhood Plan and the monorail guideway cuts into the heart of this area. The station is proposed for the approximate site of the planned park pavilion. The station would require removal of some trees and riparian vegetation. Trees would also have to be removed and trimmed in the Pigeon Point Greenbelt. The impact of increased traffic on this sensitive area is understated in the DEIS. The station would introduce a large amount of traffic, including automobiles and buses, into an area that has little traffic now and was meant to be a quiet, low-use park. In other words, the community might be essentially losing the park they had planned for. **The proposed Delridge station appears to be in conflict with both the neighborhood plan and the watershed plan, which should be addressed in the FEIS.**

**Seattle Center, although it is not a designated park, is recreational area. It is discussed more thoroughly in Land Use but should also be addressed in this section of the FEIS, focusing on the Monorail's impacts on Seattle Center as a recreational area.**

There is no reference to an image of the visual impact at the Interbay P-Patch and how access could be altered at Interbay. This site is a place that serves fairly significant crowds and the access can be a challenge. **The FEIS should provide a more detailed analysis of visual and access impacts, including potential mitigation measures.**

There is also no analysis of views from Kinnear Park. Views are the whole point at this park so this analysis is critical to an adequate assessment of impacts. This analysis should be included in the FEIS.

With regard to Pioneer Square Park, also known as Pioneer Place Park, it is puzzling to say that activity levels would not change here and at Occidental Park. It is more than likely that a station ½ to one block away be expected to increase activity levels, especially since the DEIS says that the station would enhance access to the park. **This increase in activity could be beneficial to those areas and in any case should be addressed in more detail in the FEIS.**

➤ **Mitigation**

The loss of Longfellow Creek restoration projects is not discussed at all and there is no mitigation outlined in the DEIS other than replacing some vegetation. The change in visual character and vegetation here is listed as an unavoidable adverse impact.

Another station could be located on West Seattle Stadium property, which would require removal of trees in the tree buffer. The DEIS states this would be mitigated by providing replacement property (as required by City ordinance) but there are no further details as to how or where this could be done.

**Summary of Recommendations for FEIS**

- **Provide more thorough analysis of impacts to Longfellow Creek and Stadium Park, focusing on consistency with the neighborhood plan as well as specific environmental and park access aspects.**
- **Provide more detailed analysis of impacts to the following parks/recreation areas, including specific mitigation measures where applicable: Interbay P-Patch, Kinnear Park, Seattle Center and Pioneer Square Park**

**Cultural Resources**

➤ **Overall/Description**

The DEIS provides a fairly complete listing of historic resources along the route. Many visual simulations were created to depict the monorail in context with key historic structures and areas. However, the overall impacts created by the monorail appear to be minimized and understated. As a consequence, there is insufficient detail in the impact analysis and treatment of mitigation measures.

➤ **Impacts and Mitigation**

The intrusion of a modern transit system through an historic district, Pioneer Square, has significant adverse effects not only to the individual buildings but the district as a whole. The impacts and mitigation do not adequately describe this. Bisecting the historic district would be a significant impact to its historic character. **In addition, a station is proposed to be located across from the Smith Tower, one of the city's most prominent landmarks. Its effect on the view of the building from First Avenue, and views out of the building must be addressed in the final EIS.**

Additional analysis that would be appropriate at this time include potential impacts on historic properties along 2<sup>nd</sup> and 4<sup>th</sup> Avenues in the downtown segment. The typical configuration of these buildings includes a highly ornamented base (two or three stories, often clad in terra cotta) and top. **The FEIS should include a detailed analysis regarding the extent to which these critical architectural features will be obscured or physically affected by the guideway.**

Appendix N includes a report on the historic areaways in Pioneer Square. The areaways were assessed for structural integrity. However, there does not appear to be a description of how the construction vibrations may impact these, nor any proposed mitigation.

**Overall mitigation for impacts to cultural resources is insufficient in its detail and depth of analysis. This section should be fully developed in the FEIS.**

### **Summary of Recommendations for FEIS**

- **Overall provide results of a more detailed analysis of impacts to cultural resources along the alignment.**
- **Specifically add a more detailed analysis of impacts on Pioneer Square as a district as well as to key buildings such as the Smith Tower. Identify mitigating measures to address these impacts.**
- **Carry out additional analysis of impacts on historic properties along 2<sup>nd</sup> and 4<sup>th</sup> Avenues in the downtown segment and on the Great Northern Roundhouse in Interbay.**
- **Address potential vibration impacts during construction on Pioneer Square areaways; identify potential mitigation measures.**

## **Environmental Health**

### **➤ Overall/Description**

The analysis and evaluation in this section consists almost entirely of automated site file search information, with the objective of revealing soil conditions likely to complicate excavation activities necessary for construction. The information is general and helpful only to indicate potential areas of contamination in the pathway of the proposed alignments. Since the project will be conducting geo-technical investigations for civil design requirements, **it is recommended that the FEIS include soil contamination information obtained from geo-technical borings. The borings should be used as an opportunity to describe, at a minimum, site-specific conditions at potential “trouble spots” described in the DEIS.**

### **➤ Impacts and Mitigation**

The potential for encountering petroleum contaminated soils during construction excavation is noted in the DEIS (Page 4-356 and in numerous other locations). Many of the site descriptions conclude with a statement that construction activities should be prepared to encounter possible contaminated soil and groundwater. This is a prudent statement. It is necessary, however, to indicate the actions and commitments that would take place during construction activities to: (1) avoid and minimize potential releases to the environment; (2) minimize potential health exposure; and (3) manage contaminated soil and groundwater, including off-site disposal of soils and groundwater, potential requirements for remediation of contamination, and appropriate steps for capping and isolation of contamination.

Information presented in Section 4.12.5.2 (4-366) should include project commitments for avoiding and minimizing exposure to soil and groundwater contamination, steps for disposal of contaminated soils and groundwater, and construction best management practices.

The potential for migration of petroleum hydrocarbon contamination is noted (Page 4-258). **The FEIS should indicate the actions that will be implemented during construction to avoid negative effects on the movement of contamination in groundwater.**

### **Summary of Recommendations for the FEIS**

- **Include soil contamination information obtained from geo-technical borings, describing, at a minimum, site-specific conditions at potential “trouble spots”.**
- **Include a description of actions and commitments that would take place during construction activities to avoid and minimize environmental health impacts, including effects on the movement of contamination in groundwater, potential releases into the environment, and potential health exposure.**

## **Earth**

### **➤ Overall/Description**

The DEIS provides a good overview of geology and geological hazards in the vicinity of the Green Line alignment. The DEIS describes seismic standards for design and construction as an essential project element.

### **➤ Impacts and Mitigation**

The DEIS lacks sufficient information comparing geological/earth impacts related to potential guideway and station designs. If design elements for guideways and stations must be altered to accommodate seismic requirements, it is essential that reviewers be made aware of the limitations and potential changes. **This is the type of detailed issue that may need to be included in a supplemental EIS.**

### **Summary of Recommendations for the FEIS**

- **Provide more detailed information and analysis of geological/earth impacts related to potential guideway and station designs.**

## **Water Quality**

### **➤ Overall/Description**

The DEIS provides a good overview of relevant federal, state and local water quality regulations and standards. The description of the waterways affected by the Monorail project is also of sufficient detail. In the analysis, the evaluation of potential adverse water quality effects relies on comparison with surface water contamination related to existing bus trolley systems. The DEIS does not include sufficient analysis to support such a comparison, particularly with respect to potentially harmful metal contamination that may be produced by continuous operation along a single, intensively used guideway. More analysis specific to the equipment proposed for use is required.

➤ **Impacts and Mitigation**

The evaluation of changes in pollution generating impervious surface is helpful with respect to land use permit determinations and drainage considerations, but does not provide information important to evaluating potential releases of contamination due to SMP operations. (Page 4-390). **Additional information regarding evaluation of potential releases of contamination due to SMP operations should be included in the FEIS.**

Information describing potential pollutants from monorail operations is too general. Additional information is required to support conclusions indicating minimal potential water quality effects. Information describing discharges from other similar power rail and transit vehicle systems is necessary to support determinations made in this section. (Page 4-411 and Table 4.14-11). **More detailed analysis and results should be included in the FEIS.**

Information presented in this section relies on **Best Management Practices (BMP)** to control and limit potential releases of contamination. It is important that specific BMPs be identified and commitments to implementation of the BMPs during construction and throughout operation be detailed (Page 4-414) in the FEIS.

The statement that water quality due to guideway operation would not adversely affect water quality requires supporting analysis. (Page 4-425)

**Water quality mitigation measures associated with station construction and operation must be specified and commitments to BMPs identified.**(Pages 4-421- 4-422) in the FEIS

**Summary of Recommendations for FEIS**

- **Provide more thorough analysis regarding potential adverse water quality effects, including assessment of the impacts from the equipment proposed for use.**
- **Provide more detailed analysis of potential pollutants from monorail operations, including the evaluation of potential releases of contamination due to SMP operations.**
- **Provide supporting analysis for conclusion guideway operation would not adversely affect water quality.**

**Plants and Animals**

➤ **Overall/Description**

While the monorail project route consists of areas built and committed to urban development, the SMP has the potential to alter several locations where important fish and wildlife resources are present. This section provides good information on the existing conditions, but does not address the potential impacts in sufficient detail. Specific evaluation of these areas is necessary to determine the level of impacts and potential mitigation strategies.

➤ **Impacts and Mitigation**

Additional analysis and evaluation should include bald eagle, osprey, and falcon activity along the proposed route, particularly in the area of the Southwest Spokane Street corridor. The Pigeon Point alternative route, including a separate elevated structure and disruption of vegetated area in the West Seattle greenbelt requires additional detail. Page 4-447 and 4-453

More detailed evaluation of the net adverse effects expected from placement of new structures in the Ballard area of the Lake Washington Ship Canal is necessary and should be included in the FEIS.  
Page 4-458

**The FEIS should acknowledge the need for compensation of altered aquatic habitat and provide an appropriate commitment to mitigation actions.**

### **Summary of Recommendations for the FEIS**

- **Include analysis and evaluation of impacts to bald eagle, osprey, and falcon activity along the proposed route, particularly in the SW Spokane Street corridor.**
- **Provide more detailed analysis of impacts to the West Seattle greenbelt for the Pigeon Point alternative.**
- **Provide more detailed evaluation of the net adverse impacts from new structures in the Ballard area of the Lake Washington Ship Canal**
- **Acknowledge the need for compensation of altered aquatic habitat; provide an appropriate commitment to mitigation actions.**

## **Construction**

### ➤ **Overall/Description**

The DEIS does an adequate job of describing the affected environment and overall construction scenario, including a thorough analysis of construction methods and equipment. However, it lacks detail that is necessary to assess specific impacts to particular areas that will be affected (e.g. economic impacts on businesses along the route. Mitigation is discussed in very broad terms since the DBOM contractor has not been selected. The Commission encourages the SMP to create the parameters that the DBOM must work, not the other way around.

### ➤ **Impacts**

The EIS states some construction may occur on a 24 hour basis and holidays/weekends as negotiated with City of Seattle. Construction plans would be developed to cover impacts in these areas. The Commission notes that some of the areas where this may occur include arterials that have residential uses immediately adjacent or only a block away. Residents would be subject to additional traffic, night-time noise, dust, vibrations, and night-time light. While we understand this is not unusual for construction projects in commercial or industrial areas, the potential impacts to adjacent residential areas seems minimized in the discussion, with little attention to specific mitigation measures.

Staging areas can often be quite large (especially at stations) and could require use of multiple properties. General discussion of potential staging area sites are included as construction impacts. Selection of the final construction sites are subject to the final construction plan. These parcels should be included in the Displacements section, with appropriate attention to mitigating the displaced uses. **The FEIS should add more detailed description and analysis of impacts for construction staging in Segment 3, 4 and 6 (Queen Anne/Seattle Center/Belltown, Downtown and West Seattle segments).**

Finally, dust will be produced during construction of the Green Line, affecting nearby buildings and activities. **The FEIS needs to describe in detail how historic buildings in the vicinity of the Green Line would be impacted, including potential damage more fragile facades of historic structures.**

➤ **Mitigation**

Mitigation at this level of project design and development (and without knowing particulars of construction methods) is necessarily general. **It is essential, however, that the FEIS contain detailed information about specific mitigation measures, impact thresholds that will trigger mitigation, efforts to measure and monitor project development or construction impacts, and means for keeping interested parties informed about the results of ongoing monitoring efforts. Alternately, a Supplemental EIS could address more specific construction impacts and mitigation, as well as evolving elements of project engineering or scope, at some point after the negotiation of the DBOM contract is signed and the details have been negotiated and specified.**

The SMP should look at Sound Transit for some guidance regarding specific mitigation of construction activities and their impacts (e.g. ST compensates City for police officers used during construction ). **The FEIS should not only identify mitigation measures for construction impacts, but assess the City's capacity to provide any assumed resources and responsibilities.**

### **Summary of Recommendations for the FEIS**

- **Add more detailed description and analysis of impacts for construction staging in Segment 3, 4 and 6 (Queen Anne/Seattle Center/Belltown, Downtown and West Seattle segments).**
- **Describe in detail how historic buildings in the vicinity of the Green Line would be impacted, including potential damage more fragile facades of historic structures..**
- **Provide detailed information about specific mitigation measures, impact thresholds that will trigger mitigation, efforts to measure and monitor project development or construction impacts, and means for keeping interested parties informed about the results of ongoing monitoring efforts.**
- **Consider committing to a Supplemental EIS that would address more specific construction impacts and mitigation, as well as evolving elements of project engineering or scope, at some point after the negotiation of the DBOM contract is signed and the details have been negotiated and specified.**
- **Include in the identification of mitigation measures for construction impacts, an assessment of the City's capacity to provide any assumed resources and responsibilities.**

## **Cumulative Impacts**

➤ **Overall/Description**

This section is surprisingly short given the complexity of this project and the inevitability of cumulative impacts. It is general and at times seems to understate the potential for significant cumulative impacts. This is particularly true for the downtown segment where major construction projects, displacements and loss of parking would seem to merit a more detailed analysis.

### **Impacts and Mitigation**

Several impacts should be addressed across the entire system, including the economic and land use impacts of the loss of property, the juxtaposition of loss of parking and the potential for increased parking demand at some station areas, and overall impacts to visual quality and views along the corridor, but particularly in the downtown segment. The analysis of the loss of property should address any impact it might have on the City's ability to meet its job targets, both within individual urban centers and villages and cumulatively across them.



As noted in the Commission's comments in the Transportation section, the DEIS does not look at cumulative impacts along key street corridors. This should be addressed in either the Transportation or Cumulative Impacts Section in the FEIS.

**This section concludes that there are very few cumulative impacts, and none with significant adverse impacts that should be addressed by the SMP. The FEIS should reexamine this conclusion, particularly for the areas identified above and provide appropriate analysis of mitigation measures.**

### **Summary of Recommendations for the FEIS**

- **Include an analysis of economic and land use impacts of the loss of property, the juxtaposition of loss of parking and the potential for increased parking demand at some station areas, and overall impacts to visual quality and views along the corridor, but particularly in the downtown segment. Identify appropriate potential mitigation measures.**
- **Include an analysis of cumulative traffic circulation impacts along key corridors of the SMP alignment; identify potential mitigation measures.**

### **Closing**

The Planning Commission supports the Monorail project overall and believes it is critical that the environmental assessment process provide the needed information for making good decisions regarding impacts from construction and operation of the monorail system. We hope that our comments are useful to you and that you will address them seriously as you work on the FEIS. If you have any questions, please do not hesitate to contact us through Marty Curry, Executive Director.

Sincerely,



John Owen  
Chair

cc: Mayor Greg Nickels  
Diane Sugimura, DCLU  
John Rahaim, DCLU  
Cheryl Sizov, DCLU

Grace Crunican, SDOT  
Ethan Melone, SDOT  
Chuck Kirchner, SDOT  
Martha Lester, City Council

City Councilmembers  
John Taylor, City Council  
Monorail Review Panel  
Design Commissioners